CLAIMS

1. Method to reduce noise in a noisy speech signal, comprising the steps of

- applying at least two versions of said noisy speech
5 signal to a first filter, said first filter outputting a speech reference signal and at least one noise reference signal,

- applying a filtering operation to each of said at least one noise reference signals, and

10 • subtracting from said speech reference signal each of said filtered noise reference signals,

characterised in that said filtering operation is performed with filters having filter coefficients determined by taking into account speech leakage contributions in said at
15 least one noise reference signal.

2. Method to reduce noise as in claim 1, wherein said at least two versions of said noisy speech signal are signals from at least two microphones picking up said noisy speech signal.

20 3. Method to reduce noise as in claim 1 or 2, wherein said first filter is a spatial pre-processor filter, comprising a beamformer filter and a blocking matrix filter.

4. Method to reduce noise as in claim 3, 25 wherein said speech reference signal is output by said beamformer filter and said at least one noise reference signal is output by said blocking matrix filter.

5. Method to reduce noise as in any of the previous claims, wherein said speech reference signal is
30 delayed before performing the subtraction step.

6. Method to reduce noise as in any of the previous claims, wherein additionally a filtering operation is applied to said speech reference signal and wherein said

filtered speech reference signal is also subtracted from said speech reference signal.

      7. Method to reduce noise as in any of the previous claims, further comprising the step of regularly adapting said filter coefficients, thereby taking into account said speech leakage contributions in said at least one noise reference signal or taking into account said speech leakage contributions in said at least one noise reference signal and said speech contribution in said speech reference signal.

      8. Use of a method to reduce noise as in any of the previous claims in a speech enhancement application.

      9. Signal processing circuit for reducing noise in a noisy speech signal, comprising

- a first filter, said first filter having at least two inputs and being arranged for outputting a speech reference signal and at least one noise reference signal,

- a filter to apply said speech reference signal to and filters to apply each of said at least one noise reference signals to, and

- summation means for subtracting from said speech reference signal said filtered speech reference signal and each of said filtered noise reference signals.

      10. Signal processing circuit as in claim 9, wherein said first filter is a spatial pre-processor filter, comprising a beamformer filter and a blocking matrix filter.

      11. Signal processing circuit as in claim 10, wherein said beamformer filter is a delay-and-sum beamformer.

      12. Hearing device comprising a signal processing circuit as in any of the claims 9 to 11.